

## SAT Report

PMN Number: P-11-0035

SAT Date: 11/2/2010

Print Date: 12/2/2014

### Related cases:

[REDACTED]

### Concern levels:

Type of Concern:	<u>Health</u>	<u>Eco</u>	<u>Comments</u>
Level of Concern:	2	1	

<u>Persistence</u>	<u>Bioaccum</u>	<u>Toxicity</u>	<u>Comments</u>
1	1	1	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	

### Exposure Based Review:

Health: No

Ecotox: No

### Routes of exposure:

Health: Dermal Inhalation

Ecotox: All releases to water

Fate: ;

### Keywords:

Keywords:

### Summary of Assessment:

#### Fate:

Fate Summary: P-11-0035-37

FATE: [REDACTED]

Liquid with MP < 25 C (E)

S = Disp.

VP < 1.0E-6 torr at 25 C (E)

BP > 400 C (E)

H < 1.00E-8 (E)

POTW removal (%) = 90 via partial biodeg

Time for complete ultimate aerobic biodeg = wk

Sorption to soils/sediments = low

PBT Potential: P1B1

\*CEB FATE: Migration to ground water = negl due to partial biodeg

### Health:

**Health Summary:** Absorption of the low molecular weight fraction [REDACTED] is poor through the skin, moderate through the GI tract, and good through the lungs based on analogs. There is concern for lung effects if inhaled and irritation to the lungs, mucous membranes, skin, and eyes based on [REDACTED] properties of the PMN material. The MSDS lists the pH as 7 but calls the material a severe skin and eye irritant. A similar compound [REDACTED] was negative when tested in Salmonella. Moderate concern.

### Ecotox:

Test Organism	Test Type	Test End Point	Predicted	Measured	Comments
fish	96-h	LC50	>100		
daphnid	48-h	LC50	>100		
green algal	96-h	EC50	>100		
fish	—	chronic value	>10		
daphnid	—	chronic value	>10		
algal	—	chronic value	>10		
Sewage Sludge	3-h	EC50	—		
Sewage Sludge	—	Chronic Value	—		

### **Ecotox Values Comments:**

Factors	Values	Comments
Assessment Factor	10	
Concentration of Concern (ppb)	1000	
SARs	[REDACTED]	
SAR Class	[REDACTED]	
Ecotox Category		

### **Ecotox Factors Comments:**

**SAT Chair:** Becky Jones

**Focus Report**  
**New Chemicals Program**  
PMN Number: **P-11-0035**

Focus Date: 11/08/2010 12:00:00 AM Report Status: Completed  
Consolidated Set: P-11-0035; P-11-0036; P-11-0037  
Focus Chair: Geraldine Hilton Contractor: Christina Stanley

**I. Notice Information**

Submitter: Huntsman Corporation CAS Number: [REDACTED]  
Chemical Name: [REDACTED]  
Use: Surfactant to be injected into a depleted oil wells to aid in the recovery of residual amounts of oil .  
Consolidated set P-11-0035-37. [REDACTED]  
Other Uses: [REDACTED]  
PV-Max: [REDACTED]  
Manufacture: [REDACTED] Import: X

**II. SAT Results**

(1) **Health Rating:** 2 **Eco Rating:** 1 **Comments:** ;  
**Occupational:** 1C **Non-Occupational:** **Environmental:** 3  
(1) **PBT:** 1 1 1 **Comments:**

**III. OTHER FACTORS**

**Categories:**

Health Chemical Category: Ecotox Category: [REDACTED]

**Related Cases/Regulatory History:**

Health related Cases:  
Ecotox Related Cases: Analogs: [REDACTED]  
Regulatory History:

**MSDS/Label Information:**

MSDS: Yes Label: No  
General Equipment: Safety eyewear complying with an approved standard. Personal protective equipment for the body, chemical resistant impervious gloves  
Respirator: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
Health Effects: Severely irritating to eyes. Risk of serious damage to eyes. Severely irritating to the skin. No known significant effects or critical hazards for ingestion and inhalation.  
TLV/PEL (PMN or raw material): - No information provided.

**Exposure Based Information:**

Exposure Based Review: Y Exposure Based Review (Health): N  
Exposure Based Review (Eco): N Exposure Based (Occupational): No  
Exposure Based Review (Non Occupational): N Exposure Based (Environmental): Y

Exposure Parameter	Exposure-Based	Persistent/Bioaccum	Exposure Value
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Surface DW:	Yes	
Fish Ingestion:		
Ground DW:		0
Inhalation:		0
Water Releases:	Yes	0.29
Total Releases:	Yes	9826.78
Consumer Exposure:	Yes	968771.98

#### **IV. Summary of SAT Assessment**

##### **Fate:**

**Fate Summary:** P-11-0035-37  
 FATE: [REDACTED]  
 Liquid with MP < 25 C (E)  
 S = Disp.  
 VP < 1.0E-6 torr at 25 C (E)  
 BP > 400 C (E)  
 H < 1.00E-8 (E)  
 POTW removal (%) = 90 via partial biodeg  
 Time for complete ultimate aerobic biodeg = wk  
 Sorption to soils/sediments = low  
 PBT Potential: P1B1  
 \*CEB FATE: Migration to ground water = negl due to partial biodeg

##### **Health:**

**Health Summary:** Absorption of the low molecular weight fraction [REDACTED] is poor through the skin, moderate through the GI tract, and good through the lungs based on analogs. There is concern for lung effects if inhaled and irritation to the lungs, mucous membranes, skin, and eyes based on [REDACTED] properties of the PMN material. The MSDS lists the pH as 7 but calls the material a severe skin and eye irritant. A similar compound [REDACTED] was negative when tested in Salmonella. Moderate concern.

##### **Ecotox:**

**Ecotox Values:**  
 Fish 96-h LC50: >100(P)  
 Daphnid 48-h LC50: >100(P)  
 Green algal 96-h EC50: >100(P)  
 Fish Chronic Value: >10(P)  
 Daphnid ChV: >10(P)  
 Algal ChV: >10(P)

**Ecotox values comments:** Predictions are based on SAR-nearest analog analysis for [REDACTED]; SAR chemical class [REDACTED]; liquid with mp unk (P); pH7; effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150.0 mg/L as CaCO3; and TOC <2.0 mg/L;

##### **Ecotox Factors:**

Assessment Factor: 10  
 Concern Concentration: 1000

## **V. Summary of Exposures/Releases**

Engineering Summary: P-11-0035

<b>Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Water or Incineration or Landfill</b>	<b>Water or Landfill</b>	<b>Incineration</b>
Descriptor A	High End	Output 2	Output 2
Quantity A (kg/site/day)	5.3E+0	2.9E-2	4.8E+1
Frequency A (day/year)	130	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Equipment Cleaning Losses of Liquids from Storage Tanks	
Workers			
Exposure Type			

<b>Engineering Summary: Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Deepwell Injection</b>	<b>Water</b>	<b>Landfill</b>
Descriptor A	Output 2	Output 2	Output 2
Quantity A (kg/site/day)	5.8E+0	1.6E-1	9.6E-1
Frequency A (day/year)	350	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

## V. Summary of Exposures/Releases

Engineering Summary: P-11-0035

Exposures/Releases	Release	Release	Exposure
Scenario	Processing: possible formulation/ distribution	Processing: possible formulation/ distribution	Use: enhanced oil recovery at depleted wells
Sites	1	1	52
Media	Water or Incineration or Landfill	Water or Incineration or Landfill	Dermal
Descriptor A	Conservative	High End	High End
Quantity A (kg/site/day)	9.6E+1	1.4E+2	1.5E+3
Frequency A (day/year)	250	250	250
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Equipment Cleaning Losses of Liquids from Multiple Vessels	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Unloading Liquid Raw Material from Drums
Workers			416
Exposure Type			Liquid

Engineering Summary: Exposures/Releases	Exposure		
Scenario	Processing: possible formulation/ distribution		
Sites	1		
Media	Dermal		
Descriptor A	High End		
Quantity A (kg/site/day)	1.5E+3		
Frequency A (day/year)	250		
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Unloading Liquid Raw Material from Drums		
Workers	3		
Exposure Type	Liquid		

## **VI. Focus Decision and Rationale**

### **Regulatory Actions**

Regulatory Decision: PMN Ban Pending Upfront Testing

Decision Date: 11/08/2010

Type of Decision:

Rationale:

P-11-0035, P-11-0036, and P-11-0037 will be regulated under the TSCA 5(e) category [REDACTED] Ban Pending Up Front Testing under the risk based authority for ecotoxicity concerns. Human health concerns were moderate. Risks were low due to adequate PPE recommendations and warnings as consistent with the MSDS. Ecotoxicity concerns were low. However, risks were high from releases to water where the COC of 1000 ppb was exceeded for 115 days (SWC 3041.24 ppb). Recommended ecotoxicity testing will be the base set acute and will include Aquatic Invertebrate acute toxicity, test, freshwater daphnids (harmonized test guideline 850.1010), Fish acute toxicity test, freshwater and marine (harmonized test guideline 850.1075), algal toxicity, Tiers I and II (harmonized test 850.5400). The fish and daphnia will be done using the flow through method and the static method will be used for algae in addition it is recommended that RAD approve all protocols and a COA is required of the submitter. There was no fate or human health testing required. All testing should be completed on P11-0037.

Processing: possible formulation/ distribution

Sites 1, 250 d/yr, 3 workers

Inhalation: Negligible (vp < 0.001 torr)

Dermal: 1.5E+3 mg/day over 250 days/yr [exposure to 85%]

Releases to Water 1: 9.6E+1 kg/site-day

or Incineration or Landfill

Releases to Water 1.4E+2 kg/site-day

,or Incineration or Landfill:

Fate release to water (90.00% removal)

SWC: 3041.24 ppb

DW: LADD: 3.18E-03 mg/kg/day, ADR: 0.15 mg/kg/day

FI: null

>COC (1000.00 ppb): 115 days

Fate releases to air

LADD:1.62E-02 ADR: 2.90E-01 mg/kg/day

Use: enhanced oil recovery at depleted wells

Sites 52, 350 d/yr, 416 Workers

Inhalation: Negligible (VP < 0.001 torr)

Dermal: Exposure to liquid at [85.00%]

Release to water 1: 1.6E-1 kg/site-day

Release to water 2: 3.6E+4 kg/yr

or incineration or landfill:

Water output: 5.3E+2 kg/yr

or landfill

Release to Incineration: 4.8E+1 kg/site-day

Release to Landfill: 9.6E-1 kg/site-day

Release via Deepwell Injection: 1.0E5 kg/yr

Fate release to water (90.00% removal)  
SWC: 517.83 ppb  
LADD: 1.37E-04 mg/kg/day, ADR 2.36E-02 mg/kg/day  
FI: null  
>COC (1000 ppb) 5 days

Fate release to water (90.00% removal)  
SWC: 17.83 ppb  
LADD: 1.27E-05 ADR: 8.14E-04  
FI: null  
>COC (1000 ppb): 0 days

Fate releases to air  
LADD: 4.75E-03 mg/kg/day, ADR 6.62E-02 mg/kg/day

P2 Rec Comments:

**Testing:**

**Final Recommended:**

Health:  
Eco:  
Fate:  
Other:

**Focus Report**  
**New Chemicals Program**  
PMN Number: **P-11-0036**

Focus Date: 11/08/2010 12:00:00 AM Report Status: Completed  
Consolidated Set: P-11-0035; P-11-0036; P-11-0037  
Focus Chair: Geraldine Hilton Contractor: Christina Stanley

**I. Notice Information**

Submitter: Huntsman Corporation CAS Number: [REDACTED]  
Chemical Name: [REDACTED]  
Use: Surfactant to be injected into a depleted oil wells to aid in the recovery of residual amounts of oil .  
Consolidated set P-11-0035-37. [REDACTED]  
Other Uses: [REDACTED]  
PV-Max: [REDACTED]  
Manufacture: [REDACTED] Import: X

**II. SAT Results**

(1) **Health Rating:** 2 **Eco Rating:** 1 **Comments:** ;  
**Occupational:** 1C **Non-Occupational:** **Environmental:** 3  
(1) **PBT:** 1 1 1 **Comments:**

**III. OTHER FACTORS**

**Categories:**

Health Chemical Category: Ecotox Category: [REDACTED]

**Related Cases/Regulatory History:**

Health related Cases:  
Ecotox Related Cases: Analogs: [REDACTED]  
Regulatory History:

**MSDS/Label Information:**

MSDS: Yes Label: No  
General Equipment: Safety eyewear complying with an approved standard. Personal protective equipment for the body, chemical resistant impervious gloves  
Respirator: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
Health Effects: Severely irritating to eyes. Risk of serious damage to eyes. Severely irritating to the skin. No known significant effects or critical hazards for ingestion and inhalation.  
TLV/PEL (PMN or raw material): - No information provided.

**Exposure Based Information:**

Exposure Based Review: Y Exposure Based Review (Health): N  
Exposure Based Review (Eco): N Exposure Based (Occupational): No  
Exposure Based Review (Non Occupational): Exposure Based (Environmental):

**IV. Summary of SAT Assessment**

## Fate:

### Fate Summary:

P-11-0035-37

FATE: [REDACTED]

Liquid with MP < 25 C (E)

S = Disp.

VP < 1.0E-6 torr at 25 C (E)

BP > 400 C (E)

H < 1.00E-8 (E)

POTW removal (%) = 90 via partial biodeg

Time for complete ultimate aerobic biodeg = wk

Sorption to soils/sediments = low

PBT Potential: P1B1

\*CEB FATE: Migration to ground water = negl due to partial biodeg

## Health:

### Health Summary:

Absorption of the low molecular weight fraction [REDACTED] is poor through the skin, moderate through the GI tract, and good through the lungs based on analogs. There is concern for lung effects if inhaled and irritation to the lungs, mucous membranes, skin, and eyes based on [REDACTED] properties of the PMN material. The MSDS lists the pH as 7 but calls the material a severe skin and eye irritant. A similar compound [REDACTED] was negative when tested in Salmonella. Moderate concern.

## Ecotox:

### Ecotox Values:

Fish 96-h LC50: >100(P)

Daphnid 48-h LC50: >100(P)

Green algal 96-h EC50: >100(P)

Fish Chronic Value: >10(P)

Daphnid ChV: >10(P)

Algal ChV: >10(P)

**Ecotox values comments:** Predictions are based on SAR-nearest analog analysis for [REDACTED]; SAR chemical class [REDACTED]; liquid with mp unk (P); pH7; effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150.0 mg/L as CaCO<sub>3</sub>; and TOC <2.0 mg/L;

### Ecotox Factors:

Assessment Factor: 10

Concern Concentration: 1000

## **V. Summary of Exposures/Releases**

Engineering Summary: P-11-0036

<b>Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Water or Incineration or Landfill</b>	<b>Water or Landfill</b>	<b>Incineration</b>
Descriptor A	High End	Output 2	Output 2
Quantity A (kg/site/day)	5.3E+0	2.9E-2	4.8E+1
Frequency A (day/year)	130	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Equipment Cleaning Losses of Liquids from Storage Tanks	
Workers			
Exposure Type			

<b>Engineering Summary: Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Deepwell Injection</b>	<b>Water</b>	<b>Landfill</b>
Descriptor A	Output 2	Output 2	Output 2
Quantity A (kg/site/day)	5.8E+0	1.6E-1	9.6E-1
Frequency A (day/year)	350	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

## V. Summary of Exposures/Releases

Engineering Summary: P-11-0036

Exposures/Releases	Release	Release	Exposure
Scenario	Processing: possible formulation/ distribution	Processing: possible formulation/ distribution	Use: enhanced oil recovery at depleted wells
Sites	1	1	52
Media	Water or Incineration or Landfill	Water or Incineration or Landfill	Dermal
Descriptor A	Conservative	High End	High End
Quantity A (kg/site/day)	9.6E+1	1.4E+2	1.5E+3
Frequency A (day/year)	250	250	250
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Equipment Cleaning Losses of Liquids from Multiple Vessels	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Unloading Liquid Raw Material from Drums
Workers			416
Exposure Type			Liquid

Engineering Summary: Exposures/Releases	Exposure		
Scenario	Processing: possible formulation/ distribution		
Sites	1		
Media	Dermal		
Descriptor A	High End		
Quantity A (kg/site/day)	1.5E+3		
Frequency A (day/year)	250		
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Unloading Liquid Raw Material from Drums		
Workers	3		
Exposure Type	Liquid		

## **VI. Focus Decision and Rationale**

### **Regulatory Actions**

Regulatory Decision: PMN Ban Pending Upfront Testing

Decision Date: 11/08/2010

Type of Decision:

Rationale:

P-11-0035, P-11-0036, and P-11-0037 will be regulated under the TSCA 5(e) category [REDACTED] Ban Pending Up Front Testing under the risk based authority for ecotoxicity concerns. Human health concerns were moderate. Risks were low due to adequate PPE recommendations and warnings as consistent with the MSDS. Ecotoxicity concerns were low. However, risks were high from releases to water where the COC of 1000 ppb was exceeded for 115 days (SWC 3041.24 ppb). Recommended ecotoxicity testing will be the base set acute and will include Aquatic Invertebrate acute toxicity, test, freshwater daphnids (harmonized test guideline 850.1010), Fish acute toxicity test, freshwater and marine (harmonized test guideline 850.1075), algal toxicity, Tiers I and II (harmonized test 850.5400). The fish and daphnia will be done using the flow through method and the static method will be used for algae in addition it is recommended that RAD approve all protocols and a COA is required of the submitter. There was no fate or human health testing required. All testing should be completed on P11-0037.

Processing: possible formulation/ distribution

Sites 1, 250 d/yr, 3 workers

Inhalation: Negligible (vp < 0.001 torr)

Dermal: 1.5E+3 mg/day over 250 days/yr [exposure to 85%]

Releases to Water 1: 9.6E+1 kg/site-day

or Incineration or Landfill

Releases to Water 1.4E+2 kg/site-day

,or Incineration or Landfill:

Fate release to water (90.00% removal)

SWC: 3041.24 ppb

DW: LADD: 3.18E-03 mg/kg/day, ADR: 0.15 mg/kg/day

FI: null

>COC (1000.00 ppb): 115 days

Fate releases to air

LADD:1.62E-02 ADR: 2.90E-01 mg/kg/day

Use: enhanced oil recovery at depleted wells

Sites 52, 350 d/yr, 416 Workers

Inhalation: Negligible (VP < 0.001 torr)

Dermal: Exposure to liquid at [85.00%]

Release to water 1: 1.6E-1 kg/site-day

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Water output: 5.3E+2 kg/yr

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Fate release to water (90.00% removal)  
SWC: 517.83 ppb  
LADD: 1.37E-04 mg/kg/day, ADR 2.36E-02 mg/kg/day  
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P2 Rec Comments:

**Testing:**

**Final Recommended:**

Health:  
Eco:  
Fate:  
Other:

**Focus Report**  
**New Chemicals Program**  
PMN Number: **P-11-0037**

Focus Date: 11/08/2010 12:00:00 AM Report Status: Completed  
Consolidated Set: P-11-0035; P-11-0036; P-11-0037  
Focus Chair: Geraldine Hilton Contractor: Christina Stanley

**I. Notice Information**

Submitter: Huntsman Corporation CAS Number: [REDACTED]  
Chemical Name: [REDACTED]  
Use: Surfactant to be injected into a depleted oil wells to aid in the recovery of residual amounts of oil .  
Consolidated set P-11-0035-37. Analogs [REDACTED]  
Other Uses: [REDACTED]  
PV-Max: [REDACTED]  
Manufacture: [REDACTED] Import: X

**II. SAT Results**

(1) **Health Rating:** 2 **Eco Rating:** 1 **Comments:** ;  
**Occupational:** 1C **Non-Occupational:** **Environmental:** 3  
(1) **PBT:** 1 1 1 **Comments:**

**III. OTHER FACTORS**

**Categories:**

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Exposure Based Review: Y Exposure Based Review (Health): N  
Exposure Based Review (Eco): N Exposure Based (Occupational): No  
Exposure Based Review (Non Occupational): Exposure Based (Environmental):

**IV. Summary of SAT Assessment**

## Fate:

### Fate Summary:

P-11-0035-37

FATE: [REDACTED]

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### Ecotox Factors:

Assessment Factor: 10

Concern Concentration: 1000

## **V. Summary of Exposures/Releases**

Engineering Summary: P-11-0037

<b>Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Water or Incineration or Landfill</b>	<b>Water or Landfill</b>	<b>Incineration</b>
Descriptor A	High End	Output 2	Output 2
Quantity A (kg/site/day)	5.3E+0	2.9E-2	4.8E+1
Frequency A (day/year)	130	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Equipment Cleaning Losses of Liquids from Storage Tanks	
Workers			
Exposure Type			

<b>Engineering Summary: Exposures/Releases</b>	<b>Release</b>	<b>Release</b>	<b>Release</b>
<b>Scenario</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>	<b>Use: enhanced oil recovery at depleted wells</b>
<b>Sites</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Media</b>	<b>Deepwell Injection</b>	<b>Water</b>	<b>Landfill</b>
Descriptor A	Output 2	Output 2	Output 2
Quantity A (kg/site/day)	5.8E+0	1.6E-1	9.6E-1
Frequency A (day/year)	350	350	350
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

## V. Summary of Exposures/Releases

Engineering Summary: P-11-0037

Exposures/Releases	Release	Release	Exposure
Scenario	Processing: possible formulation/ distribution	Processing: possible formulation/ distribution	Use: enhanced oil recovery at depleted wells
Sites	1	1	52
Media	Water or Incineration or Landfill	Water or Incineration or Landfill	Dermal
Descriptor A	Conservative	High End	High End
Quantity A (kg/site/day)	9.6E+1	1.4E+2	1.5E+3
Frequency A (day/year)	250	250	250
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Equipment Cleaning Losses of Liquids from Multiple Vessels	Cleaning Liquid Residuals from Drums Used to Transport the Raw Material	Unloading Liquid Raw Material from Drums
Workers			416
Exposure Type			Liquid

Engineering Summary: Exposures/Releases	Exposure		
Scenario	Processing: possible formulation/ distribution		
Sites	1		
Media	Dermal		
Descriptor A	High End		
Quantity A (kg/site/day)	1.5E+3		
Frequency A (day/year)	250		
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From	Unloading Liquid Raw Material from Drums		
Workers	3		
Exposure Type	Liquid		

## **VI. Focus Decision and Rationale**

### **Regulatory Actions**

Regulatory Decision: PMN Ban Pending Upfront Testing

Decision Date: 11/08/2010

Type of Decision:

Rationale:

P-11-0035, P-11-0036, and P-11-0037 will be regulated under the TSCA 5(e) category [REDACTED] Ban Pending Up Front Testing under the risk based authority for ecotoxicity concerns. Human health concerns were moderate. Risks were low due to adequate PPE recommendations and warnings as consistent with the MSDS. Ecotoxicity concerns were low. However, risks were high from releases to water where the COC of 1000 ppb was exceeded for 115 days (SWC 3041.24 ppb). Recommended ecotoxicity testing will be the base set acute and will include Aquatic Invertebrate acute toxicity, test, freshwater daphnids (harmonized test guideline 850.1010), Fish acute toxicity test, freshwater and marine (harmonized test guideline 850.1075), algal toxicity, Tiers I and II (harmonized test 850.5400). The fish and daphnia will be done using the flow through method and the static method will be used for algae in addition it is recommended that RAD approve all protocols and a COA is required of the submitter. There was no fate or human health testing required. All testing should be completed on P11-0037.

Processing: possible formulation/ distribution

Sites 1, 250 d/yr, 3 workers

Inhalation: Negligible (vp < 0.001 torr)

Dermal: 1.5E+3 mg/day over 250 days/yr [exposure to 85%]

Releases to Water 1: 9.6E+1 kg/site-day

or Incineration or Landfill

Releases to Water 1.4E+2 kg/site-day

,or Incineration or Landfill:

Fate release to water (90.00% removal)

SWC: 3041.24 ppb

DW: LADD: 3.18E-03 mg/kg/day, ADR: 0.15 mg/kg/day

FI: null

>COC (1000.00 ppb): 115 days

Fate releases to air

LADD:1.62E-02 ADR: 2.90E-01 mg/kg/day

Use: enhanced oil recovery at depleted wells

Sites 52, 350 d/yr, 416 Workers

Inhalation: Negligible (VP < 0.001 torr)

Dermal: Exposure to liquid at [85.00%]

Release to water 1: 1.6E-1 kg/site-day

Release to water 2: 3.6E+4 kg/yr

or incineration or landfill:

Water output: 5.3E+2 kg/yr

or landfill

Release to Incineration: 4.8E+1 kg/site-day

Release to Landfill: 9.6E-1 kg/site-day

Release via Deepwell Injection: 1.0E5 kg/yr

Fate release to water (90.00% removal)  
SWC: 517.83 ppb  
LADD: 1.37E-04 mg/kg/day, ADR 2.36E-02 mg/kg/day  
FI: null  
>COC (1000 ppb) 5 days

Fate release to water (90.00% removal)  
SWC: 17.83 ppb  
LADD: 1.27E-05 ADR: 8.14E-04  
FI: null  
>COC (1000 ppb): 0 days

Fate releases to air  
LADD: 4.75E-03 mg/kg/day, ADR 6.62E-02 mg/kg/day

P2 Rec Comments:

**Testing:**

**Final Recommended:**

Health:  
Eco:  
Fate:  
Other:

## Briefing Summary

- A. PMN: P-11-0035
- B. Disposition Meeting Date:
- C. Program Manager: Audrey Binder

## II. Discussion

- A. Focus Results: P-11-0035, P-11-0036, and P-11-0037 will be regulated under the TSCA 5(e) category [REDACTED] Ban Pending Up Front Testing under the risk based authority for ecotoxicity concerns. Human health concerns were moderate. Risks were low due to adequate PPE recommendations and warnings as consistent with the MSDS. Ecotoxicity concerns were low. However, risks were high from releases to water where the COC of 1000 ppb was exceeded for 115 days (SWC 3041.24 ppb). Recommended ecotoxicity testing will be the base set acute and will include Aquatic Invertebrate acute toxicity, test, freshwater daphnids (harmonized test guideline 850.1010), Fish acute toxicity test, freshwater and marine (harmonized test guideline 850.1075), algal toxicity, Tiers I and II (harmonized test 850.5400). The fish and daphnia will be done using the flow through method and the static method will be used for algae in addition it is recommended that RAD approve all protocols and a COA is required of the submitter. There was no fate or human health testing required. All testing should be completed on P11-0037.

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Dermal: 1.5E+3 mg/day over 250 days/yr [exposure to 85%]

Releases to Water 1: 9.6E+1 kg/site-day  
or Incineration or Landfill

Releases to Water 1.4E+2 kg/site-day  
, or Incineration or Landfill:

Fate release to water (90.00% removal)

SWC: 3041.24 ppb

DW: LADD: 3.18E-03 mg/kg/day, ADR: 0.15 mg/kg/day

FI: null

>COC (1000.00 ppb): 115 days

Fate releases to air

LADD: 1.62E-02 ADR: 2.90E-01 mg/kg/day

Use: enhanced oil recovery at depleted wells

Sites 52, 350 d/yr, 416 Workers

Inhalation: Negligible (VP < 0.001 torr)

Dermal: Exposure to liquid at [85.00%]

Release to water 1: 1.6E-1 kg/site-day

Release to water 2: 3.6E+4 kg/yr

or incineration or landfill:

Water output: 5.3E+2 kg/yr  
or landfill

Release to Incineration: 4.8E+1 kg/site-day

Release to Landfill: 9.6E-1 kg/site-day

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Fate release to water (90.00% removal)  
SWC: 17.83 ppb  
LADD: 1.27E-05 ADR: 8.14E-04  
FI: null  
>COC (1000 ppb): 0 days

Fate releases to air  
LADD: 4.75E-03 mg/kg/day, ADR 6.62E-02 mg/kg/day

#### B. New Information:

### III. Final Disposition and Rationale

Drop from further review, based on the amended release information indicating that the COC of 1000 ppb would only be exceeded 1 day per year during processing operations. Although the case still meets some exposure-based criteria, the aquatic toxicity is low and the removal rate in WWT is expected to be 90%. The submitter as amended the submission to indicate that most waste releases from the processing and use will be landfilled, incinerated, or will go to deepwell injection. The water releases that could occur are not expected to exceed the COC for more than 1 day per year, with a SWC of 219 mmb. The focus group agreed with the program manager's recommendation.

### Document History

Last Updated by
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